

1  
2     **Supplementary material**  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

List of case reports of COVID-19 related acute pancreatitis with references ordered by the first author.

For Peer Review Only

**Supplementary Material**

1

2

3

**List of case reports of COVID-19 related acute pancreatitis with references ordered by the first author.**

4

Author	Sex	Age (y)	Abdominal complaints	Latency	Laboratory findings	Pancreas imaging	Chest imaging	Atlanta Criteria <sup>1</sup>	Out-come
Acherja <sup>1</sup>	F	57	Epigastric pain	5 days after onset of general symptoms	LPS (↑), 8352 U/L (UL, 300 U/L) AMS (↑), 80 U/L (UL, 115 U/L) CRP (↑), 233 mg/L WBC (↔), 8.7×10 <sup>9</sup> /L	CT: edematous pancreas, peripancreatic stranding	CT: COVID	1,2,3	R
Ahmed <sup>2</sup>	M	47	Fever, diarrhea, vomiting, diffuse abdominal pain, later localized to the right lower quadrant	5 days after general symptoms	LPS (↑), >600 U/L (UL, 60 U/L) AMS (↑), 349 U/L (UL, 53 U/L) CRP (↑), 239 mg/L WBC (↑), 25.9×10 <sup>9</sup> /L	CT: paracolic gutter fat stranding, free fluid	CR, CT: COVID	1,2	R
Aloysius <sup>3</sup>	F	36	Nausea, vomiting, and diarrhea, fever	Concurrent onset of respiratory and abdominal symptoms	LPS (↑), 627 U/L (UL, 82U/L) AMS (↑), 325 U/L (UL, 103 U/L) WBC (↔), 4.800×10 <sup>9</sup> /L CRP, 19.5 mg/l	CT: unremarkable pancreas	CT: COVID	1,2	R
Alves <sup>4</sup>	F	56	Epigastric pain	Concurrent with pulmonary symptoms	LPS (↑), 580 U/L AMS (↑), 249 U/L	CT: enlargement of pancreas, peripancreatic fat stranding	CT, CXR: COVID	1,2,3	R
Alwaeli <sup>5</sup>	M	30	Nausea, abdominal pain (epigastric, radiating to the back), vomiting, diarrhea, fever	Initial presentation	LPS (↑) 1022 U/L (UL, 200 U/L) AMS (↑), 151 U/L (UL, 110 U/L) WBC, 5.48×10 <sup>9</sup> /L (UL, 11.0×10 <sup>9</sup> /L)	CT: notable interstitial edema, fat stranding	CXR: COVID	1,2,3	R
Anand <sup>6</sup>	F	59	Abdominal pain, constipation, fever	10 days after pulmonary symptoms	CRP (↑), 63 mg/L WBC (↑), 14.3×10 <sup>9</sup> /L AMS, LPS not sampled	CT: enlarged pancreas	NR	1,3	R
Bokhari <sup>7</sup>	M	32	Fever, diarrhea, severe mid/epigastric pain radiating to the back, chills, vomiting	15 days after general symptoms	LPS (↑), 721 U/L (UL, 51 U/L) AMS (↑), 672 U/L (UL, 100 U/L) CRP (↑), 15.8 mg/L (UL, 5mg/L) WBC (↑), 12×10 <sup>9</sup> /L	CT: bulky swollen pancreas, peripancreatic fluid	NR	1,2,3	R
Brikman <sup>8</sup>	M	61	Sudden diffuse abdominal pain with anorexia	14+5 days after pulmonary symptoms	LPS (↑), 203 U/L (UL, 67 U/L) AMS (↑), 142 U/L (UL, 100 U/L) WBC (↑), 37×10 <sup>9</sup> /L (UL, 11.5×10 <sup>9</sup> /L)	CT: enlargement of pancreas, peripancreatic fluid	CXR: COVID	1,2,3	R
Cheung <sup>9</sup>	M	38	Severe epigastric pain, nausea, vomiting, fever	1 week after positive PCR test	LPS (↑), 20 320 µkat/L WBC, 12.5×10 <sup>9</sup> /L	CT: acute pancreatitis	NR	1,2	R

Dietrich <sup>10</sup> 1 2	M	72	Progressive nausea and abdominal pain	Initial presentation	LPS ( $\uparrow$ ), 185 U/L (UL, 67 U/L) CRP ( $\uparrow$ ), 23 mg/L (UL, 5 mg/L) WBC ( $\leftrightarrow$ ), $4.8 \times 10^9/L$	CT: no changes	CT: COVID	1,2	R
Fernandes <sup>11</sup> 3 4 5 6	F	36	Fever, intense upper abdominal pain	9 days after pulmonary symptoms	LPS ( $\uparrow$ ), 640 U/L AMS ( $\uparrow$ ), 710 U/L	CT: interstitial edematous pancreatitis, acute peripancreatic fluid collection	CT: COVID	1,2,3	R
Gadiparthi <sup>12</sup> 7 8 9	M	40	Epigastric pain, nausea, vomiting (fever after 1 day)	Initial presentation	LPS ( $19 \times \uparrow$ ), 1544 U/L (UL, 82 U/L) CRP ( $\uparrow$ ), 300 mg/L (UL, 5mg/L)	CT: extensive peripancreatic stranding and fluid	CXR: no signs	1,2,3	R
Ghosh <sup>13</sup> 10 11 12 13 14 15	M	63	Fever	>1 week after pulmonary symptoms (not exactly specified)	LPS ( $\uparrow$ ), 412 U/L (UL, 160 U/L) AMS ( $\leftrightarrow$ ), 58 U/L(UL, 115 U/L) CRP ( $\uparrow$ ), 38.9 mg/L (UL, <10 mg/L) WBC, $9.0 \times 10^9/L$	CT: enlarged pancreas, stranding	NR	3	R
Gonzalo-Voltas <sup>14</sup> 16 17 18 19	F	76	Epigastric pain radiating to both hypochondriac regions, vomiting, diarrhea	Initial presentation	AMS ( $\uparrow$ ), 3568 U/L CRP, 19 mg/L	CT: findings of interstitial edematous pancreatitis	Normal CXR	1,3	R
Hadi <sup>15</sup> 20 21 22 23	F	47	Anorexia, fever	One week after pulmonary symptoms	AMS ( $\uparrow$ ), >1500 U/L	US: enlarged pancreas	CXR: COVID	2,3	NR
	F	68	Epigastric pain, vomitus, diarrhea, polydipsia, fever	Concurrent with pulmonary symptoms	AMS ( $\uparrow$ ), 934 U/L CRP, 77 mg/L	NR	CXR: COVID	1,2	NR
Hassani <sup>16</sup> 28 29 30	F	78	Epigastric pain, chills, nausea, vomiting	Initial presentation	LPS ( $\uparrow$ ), 230 U/L AMS ( $\uparrow$ ), 185 U/L	CT: necrotizing pancreatitis	CT: COVID	1,2,3	R
Kandasamy <sup>17</sup> 31 32 33	F	45	Severe sharp epigastric pain radiating to the back, nausea, vomiting	Initial presentation	LPS ( $\uparrow$ ),293 U/L AMS ( $\uparrow$ ), 364 U/L WBC, $12.5 \times 10^9/L$	CT: enlarged pancreas, peripancreatic fluid collection	CT: COVID	1,3	R
Karimzadeh <sup>18</sup> 34 35 36	F	65	Upper abdominal pain, nausea, chills	Concurrent with general symptoms	LPS ( $\uparrow$ ), 283 U/L (UL, 60 U/L) AMS ( $\uparrow$ ), 192 U/L (UL, 140 U/L) WBC ( $\leftrightarrow$ ), $3.6 \times 10^9/L$ (UL, $9.510^9/L$ )	CT: normal	CT: COVID	1,2	R
Kataria <sup>19</sup> 37 38 39 40	F	49	Nausea, vomiting, severe epigastric pain with radiation to the back, fever	1 day after admission for pulmonary symptoms	LPS ( $\uparrow$ ), 1.541 U/L (UL, 160 U/L) AMS ( $\uparrow$ ), 501 U/L(UL, 110 U/L) CRP ( $\uparrow$ ), 25.1 (UL, <10mg/L)	CT: enlarged edematous pancreas	CXR, CT: COVID	1,2,3	R
Kumaran <sup>20</sup> 41 42 43 44	F	67	Epigastric pain, diarrhea, vomiting, elevated temperature	Initial presentation	AMS ( $\uparrow$ ), 1483 U/L CRP, 158 mg/L WBC $12.5 \times 10^9/L$	CT: necrosis of head and body of the pancreas, peripancreatic fluid collection	CXR: no signs	1,2,3	R

1 2 3	Kurihara <sup>21</sup>	M	55	None reported because of sedation	14 days after respiratory symptoms	LPS ( $\uparrow$ ), 263 U/L (UL, 55 U/L) AMS ( $\uparrow$ ), 252 U/L (UL, 132 U/L) CRP ( $\uparrow$ ), 85.3 mg/L WBC ( $\leftrightarrow$ ), $6.3 \times 10^9/L$	CT: enlarged pancreas, peripancreatic stranding	COVID (modality NR)	2,3	R
4 5 6 7 8	Lakshmanan <sup>22</sup>	M	68	Anorexia, nausea, vomiting	Initial presentation	LPS ( $\uparrow$ ), 2035 U/L AMS ( $\uparrow$ ), 1030 U/L WBC ( $\leftrightarrow$ ), $8.9 \times 10^9/L$ CRP ( $\uparrow$ ), 158 mg/L	CT: peripancreatic fat stranding	CXR: no signs	2,3	R
9 10 11 12 13 14	Mazrouei <sup>23</sup>	M	24	Non-radiating sharp epigastric pain, nausea, vomiting	Concurrent with upper mild respiratory symptoms	LPS ( $\uparrow$ ), 578 U/L AMS ( $\uparrow$ ), 391 U/L	CT: edema of pancreas, peripancreatic fluid	NR	1,2,3	R
15 16 17	Meirelles <sup>24</sup>	F	36	Nausea, vomiting, belt-like epigastric pain	11 <sup>th</sup> day after pulmonary symptoms	LPS (10 $\times$ $\uparrow$ ), 631 U/L AMS (10 $\times$ $\uparrow$ ), 718 U/L CRP, 119 mg/L	CT: no pancreatic abnormalities	CT: COVID	2,3	R
18 19 20 21	Meyers <sup>25</sup>	M	67	Epigastric abdominal discomfort	Initial presentation	LPS ( $\uparrow$ ), 5295 U/L AMS ( $\uparrow$ ), 249 U/L WBC ( $\leftrightarrow$ ), $8.9 \times 10^9/L$	CT: interstitial edematous pancreatitis, peripancreatic stranding	CT: possible COVID	1, 2,3	NR
22 23 24	Miao <sup>26</sup>	F	26	Severe vomiting, epigastric pain and fever	Initial presentation	LPS (3.5 $\times$ $\uparrow$ ), 211 U/L WBC, $5.96 \times 10^9/L$ CRP, 13.8 mg/L	CT: enlarged pancreas	CT: COVID	1,3	R
25 26 27	Narang <sup>27</sup>	F	20	Sharp epigastric pain radiating to the back, nausea, vomiting	5 days after pulmonary symptoms	LPS ( $\uparrow$ ), 916 U/L (UL, 160 U/L) AMS ( $\uparrow$ ), 360 U/L (UL, 110 U/L) WBC ( $\leftrightarrow$ ), $10 \times 10^9/L$	MR: pancreatitis	CT: COVID	1,2,3	R
28 29 30 31 32	Patnaik <sup>28</sup>	M	29	Progressive diffuse abdominal pain with radiation to the back, fever	Initial presentation	LPS (30 $\times$ $\uparrow$ ), 1650 U/L AMS (20 $\times$ $\uparrow$ ), 2861 U/L CRP ( $\uparrow$ ), 146 mg/L WBC ( $\uparrow$ ), $17.8 \times 10^9/L$	CT: enlarged pancreas with peripancreatic fluid	CT: possible COVID	1,2,3	R
33 34 35 36	Pinte <sup>29</sup>	M	47	Severe epigastric pain with radiation to the back, nausea, constipation	12 days after pulmonary symptoms	LPS ( $\uparrow$ ), 22 $\times$ UL AMS ( $\uparrow$ ), 6 $\times$ UL CRP, 63.2 mg/L	CT: edematous changes in the caudal region of pancreas	CT: COVID	1,2,3	R
37 38 39 40 41	Purayil <sup>30</sup>	M	58	Fever, vomiting, epigastric pain, diarrhea	Initial presentation	LPS ( $\uparrow$ ), >600 U/L AMS ( $\uparrow$ ), 249 U/L WBC ( $\leftrightarrow$ ), $8.9 \times 10^9/L$ CRP ( $\uparrow$ ), 158 mg/L	US: pancreas not visualized	CXR: possible COVID	1,2	R
42 43 44 45	Rabice <sup>31</sup>	F	36	Fever, nausea, vomiting, epigastric pain	8 days after respiratory symptoms	LPS ( $\uparrow$ ), 875 U/L AMS ( $\uparrow$ ), 88 U/L	US: pancreas not visualized	CXR: COVID	1,2,3	R

Shinohara <sup>32</sup> 1 2 3	M 4	58 5	Intermittent abdominal pain, fever 6	12 days after pulmonary symptoms 7	AMS (↑), 383 U/L (UL, 132 U/L) WBC (↑), $5.4 \times 10^9/L$ 8	CT: diffuse enlargement of pancreas, peripancreatic fat stranding 9	CT: COVID 10	1,2,3 11	R 12
Simou <sup>33</sup> 1 2 3	M 4	67 5	Fever 6	15 days after pulmonary symptoms 7	LPS (↑), 576 U/L (UL, 160 U/L) WBC (↔), $5.9 \times 10^9/L$ 8	CT: enlarged pancreas, peripancreatic fat stranding 9	CT: COVID 10	2,3 11	D 12
Tollard <sup>34</sup> 1 2 3	F 4	32 5	Epigastric abdominal pain, fever 6	Initial presentation 7	LPS (↑), 321 U/L (UL, 60 IU/L) WBC, $14.9 \times 10^9/L$ (UL, $10.0 \times 10^9/L$ ) 8	CT: enlarged pancreas, peripancreatic effusion, stranding, thickening of the left prerenal fascia 9	CT: COVID 10	1,2,3 11	D 12
Wang <sup>35</sup> 1 2 3	M 4	42 5	Nausea, upper abdominal pain with radiation to the back 6	Initial presentation 7	LPS (↑), 382 U/L (UL, 180 U/L) AMS (↔), 132 U/L (180 U/L) 8	CT: enlarged pancreas, peripancreatic fluid 9	CT, CXR: COVID 10	1,3 11	D 12
	M 13	35 14	Nausea, vomiting, upper abdominal pain with radiation to the back 15	Initial presentation 16	LPS (↑), 1042 U/L (UL, 180 U/L) AMS (↔) CRP (↑), >200 mg/L (UL 10 mg/L) 17	CT: enlarged pancreas, peripancreatic fluid, thickening of prerenal fascia 18	CT: COVID 19	1,2,3 20	R 21

NR, not reported; AMS, serum amylase; LPS, serum lipase; CRP, C-reactive protein; WBC, white blood cell count; UL, upper limit; ↑, elevated; ↔, normal value; US, ultrasound; CT, computed tomography; CXR, chest X-ray; COVID, findings compatible with COVID-19 pneumonia; R, recovered; D, died;

Publication dates: April to December, 2020.

Atlanta criteria: 1 - abdominal pain consistent with acute pancreatitis; 2 - serum lipase or amylase levels  $\geq 3 \times$  upper limit normal; 3 – characteristic findings on imaging.